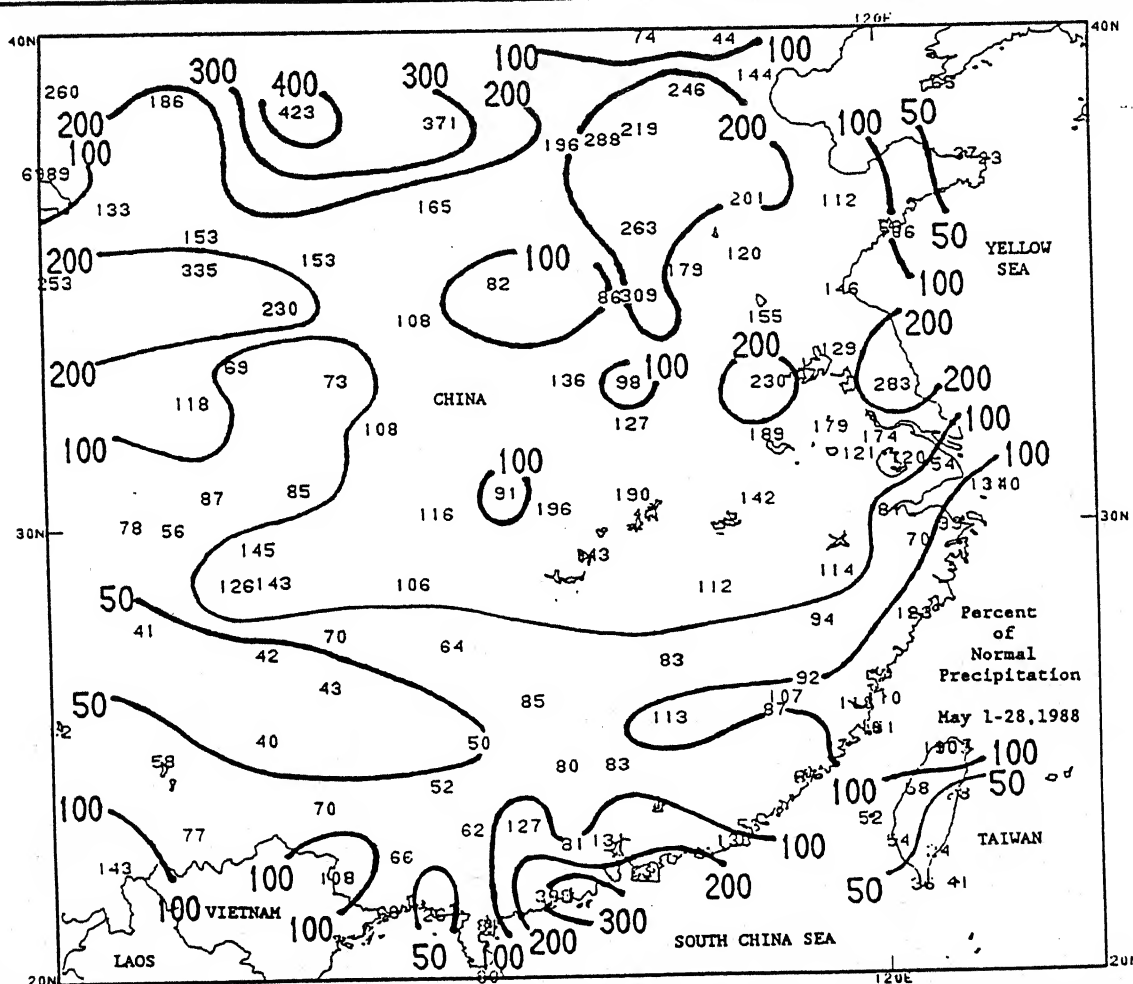


WEEKLY CLIMATE BULLETIN

No. 88/22

Washington, DC

May 28, 1988



TORRENTIAL RAINS AND SEVERE THUNDERSTORMS HAVE AFFLICTED PARTS OF EASTERN CHINA THIS MAY. EARLY IN THE MONTH, HEAVY RAINS AND HAIL POUNDED THE COASTAL PROVINCES OF JIANGSU AND SHANDONG (BORDERING THE YELLOW SEA) AND ADJACENT PROVINCES TO THE WEST. MORE RECENTLY, INUNDATING RAINS IN SOUTHEASTERN CHINA FLOODED PORTIONS OF FUJIAN AND GUANGDONG PROVINCES (BORDERING THE SOUTH CHINA SEA) AND NEIGHBORING PROVINCES TO THE NORTHWEST. REFER TO THE SPECIAL CLIMATE SUMMARY FOR FURTHER DETAILS.

NOAA - NATIONAL WEATHER SERVICE - NATIONAL METEOROLOGICAL CENTER

WEEKLY CLIMATE BULLETIN

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This Bulletin is issued weekly by the Climate Analysis Center and is designed to indicate, in a brief, concise format, current surface climatic conditions in the United States and around the world. The Bulletin contains:

- Highlights of major global climatic events and anomalies.
- U.S. climatic conditions for the previous week.
- U.S. apparent temperatures (summer) or wind chill (winter).
- Global two-week temperature anomalies.
- Global four-week precipitation anomalies.
- Global monthly temperature and precipitation anomalies.
- Global three-month precipitation anomalies (once a month).
- Global twelve-month precipitation anomalies (every 3 months).
- Global temperature anomalies for winter and summer seasons.
- Special climate summaries, explanations, etc. (as appropriate).

Most analyses contained in this Bulletin are based on preliminary, unchecked data received at the Center via the Global Telecommunication System. Similar analyses based on final, checked data are likely to differ to some extent from those presented here.

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GLOBAL HIGHLIGHTS

MAJOR CLIMATIC EVENTS AND ANOMALIES AS OF MAY 28, 1988
(Approximate duration of anomalies is in brackets.)

1. North Central U.S.A. and South Central Canada:
WARM, DRY CONDITIONS PERSIST.

Less than 4 mm (0.16 inch) of rain fell across the area, while unseasonably warm weather between 2 and 6°C (3.6 and 10.8°F) above normal further aggravated the unusually dry conditions [11 weeks-dry; 4 weeks-warm].

2. Central and Southern United States:
DRYNESS CONTINUES IN MOST AREAS.

Dry conditions remained in the region and expanded to include eastern Texas; however, moderate rainfall across the central Mississippi Valley eased dryness in Tennessee, Missouri, and Arkansas [8 weeks].

3. Eastern Europe:
DRYNESS PREVAILS THROUGHOUT.

Light precipitation, generally under 14 mm (0.56 inch), was measured from Germany and Poland southward to Greece and Turkey. The dry region has expanded northeastward to include the Balkan States and the southern tip of Finland [8 weeks].

4. Thailand:
HEAVY RAINS ABATE

Less than 30 mm (1.2 inches) of precipitation fell in Thailand last week and ended the anomalously wet conditions [Ended at 6 weeks].

5. Southeastern China:
HEAVY RAINS PRODUCE FLOODING.

Torrential rainfall, totaling up to 220 mm (8.8 inches) in some southeastern locations, inundated the region. Abnormally wet weather has persisted throughout May [See Special Climate Summary] [4 weeks].

6. Southeastern Australia:
WETNESS SHORT-LIVED.

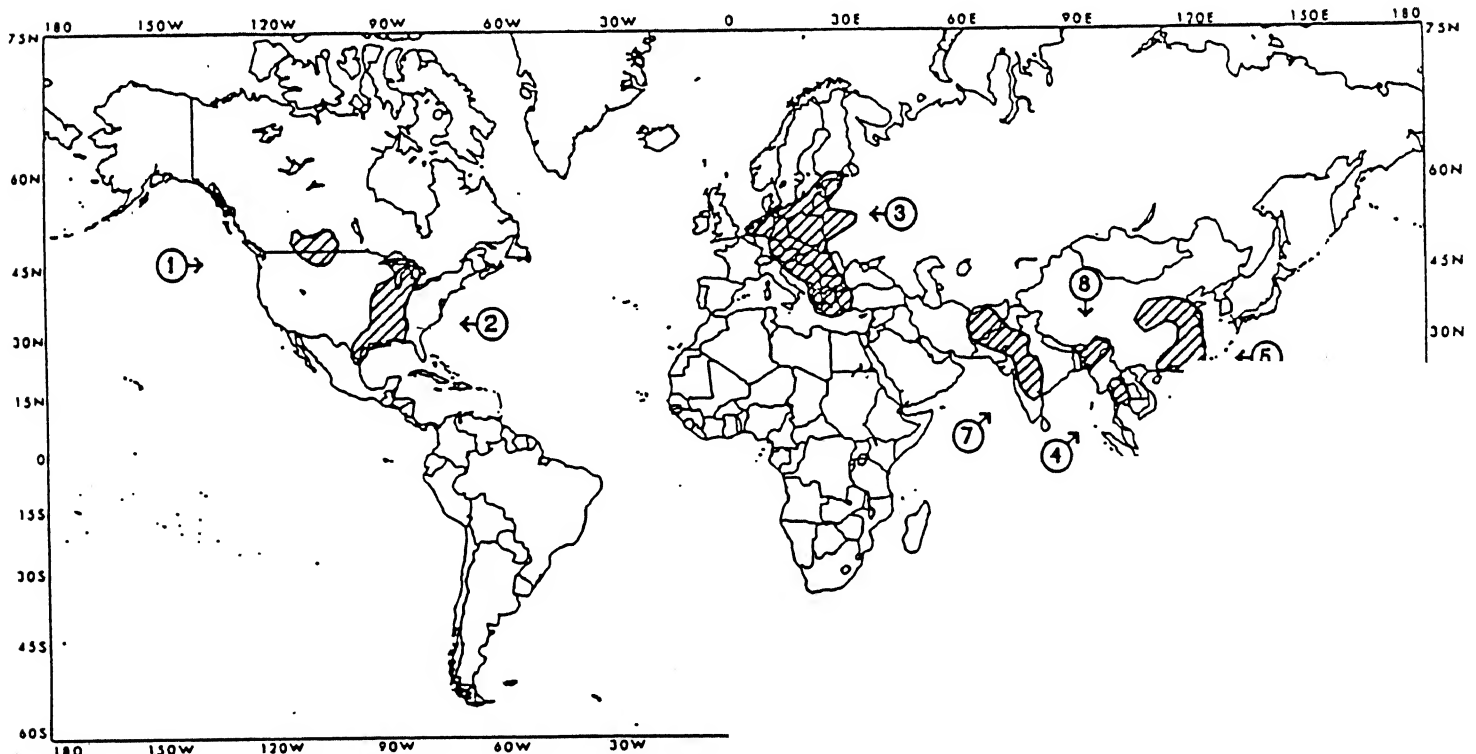
Scattered showers dropped less than 40 mm (1.6 inches) of rain as conditions returned to near normal [Ended at 7 weeks].

7. Afghanistan, Central Pakistan, and Northern India:
VERY HOT CONDITIONS DEVELOP.

A severe heat wave developed across the region as some Indian stations reported average temperatures up to 38.5°C (101.3°F). Average daily maximum apparent temperatures for the week were as great as 46.2°C (115.2°F) [2 weeks].

8. Bangladesh and Northeastern India:
HEAVY RAINFALL AND HIMALAYAN
SNOW MELT OVERWHELM RIVERS.

The combination of torrential showers in northeastern India (up to 278 mm (11.12 inches)) and the annual snow melt from the Himalaya Mountains has created severe flooding in the area according to press reports [Episodal Event].



Approximate locations of the major anomalies on this map. See the other world maps in this report for four-week precipitation anomalies.

U.S. WEEKLY WEATHER HIGHLIGHTS

FOR THE WEEK OF MAY 22 THROUGH MAY 28, 1988

Heavy rainfall was scattered across the eastern half of the country in association with a strong cold front and its resulting showers and thunderstorms (see Table 1). Various stations in the central and southern Great Plains, Midwest, Southeast, mid-Atlantic, and New England regions experienced over two inches of rain last week according to the River Forecast Center (RFC). Greatest RFC totals per state ranged from 2-3 inches in the western parts of Texas and Kansas, northern Arkansas, west-central Alabama, northeastern Pennsylvania, and northern Massachusetts; 3-4 inches in northwestern Washington, northeastern Oklahoma, western Tennessee, central Mississippi, eastern South Carolina, northern Indiana, and south-central New York; 4-5 inches in southern Missouri, northern Maryland, and southeastern North Carolina; and 5-6 inches in north-central Florida and northern Virginia. Light to moderate amounts were measured in northern California and the Pacific Northwest, across much of the northern and central Great Plains, in eastern New Mexico and western Texas, and throughout most of the nation east of the Mississippi River except for the Great Lakes region. Precipitation amounts were highly variable but generally less than an inch in the abnormally dry sections of the northern Great Plains, Midwest, Texas, and

Southeast (see Weekly Climate Bulletins dated 5/14/88 and 5/21/88). Little or no rain fell in the Southwest, Great Basin, and Rocky Mountain states, along the Canadian border in the northern Great Plains, the eastern two-thirds of Texas and western Louisiana, southwestern Florida, and in the vicinity of the Great Lakes from eastern Iowa northeastwards into western New York.

Warm weather prevailed across most of the western and northern thirds of the United States, in southern Florida, and in much of Alaska. Largest departures above normal (between +8 to +11°F) were located in Arizona and from Utah northeastwards into Montana and North Dakota (see Table 2), while a few stations in the area set new daily record maximum temperatures. Cooler conditions covered parts of northern California and the Pacific Northwest, and the southern two-thirds of the nation east of the Rockies. During the first half of the week, several locations in the eastern half of the U.S. established daily record low temperatures as a strong high pressure center moved out of Canada and brought unseasonably cold weather (temperatures between 30-40°F) to the area. Departures of -5 to -7°F were observed in central Texas, Arkansas, Louisiana, and in surrounding states (see Table 3).

WEEKLY WEATHER FEATURES WEEK ENDING MAY 28, 1988

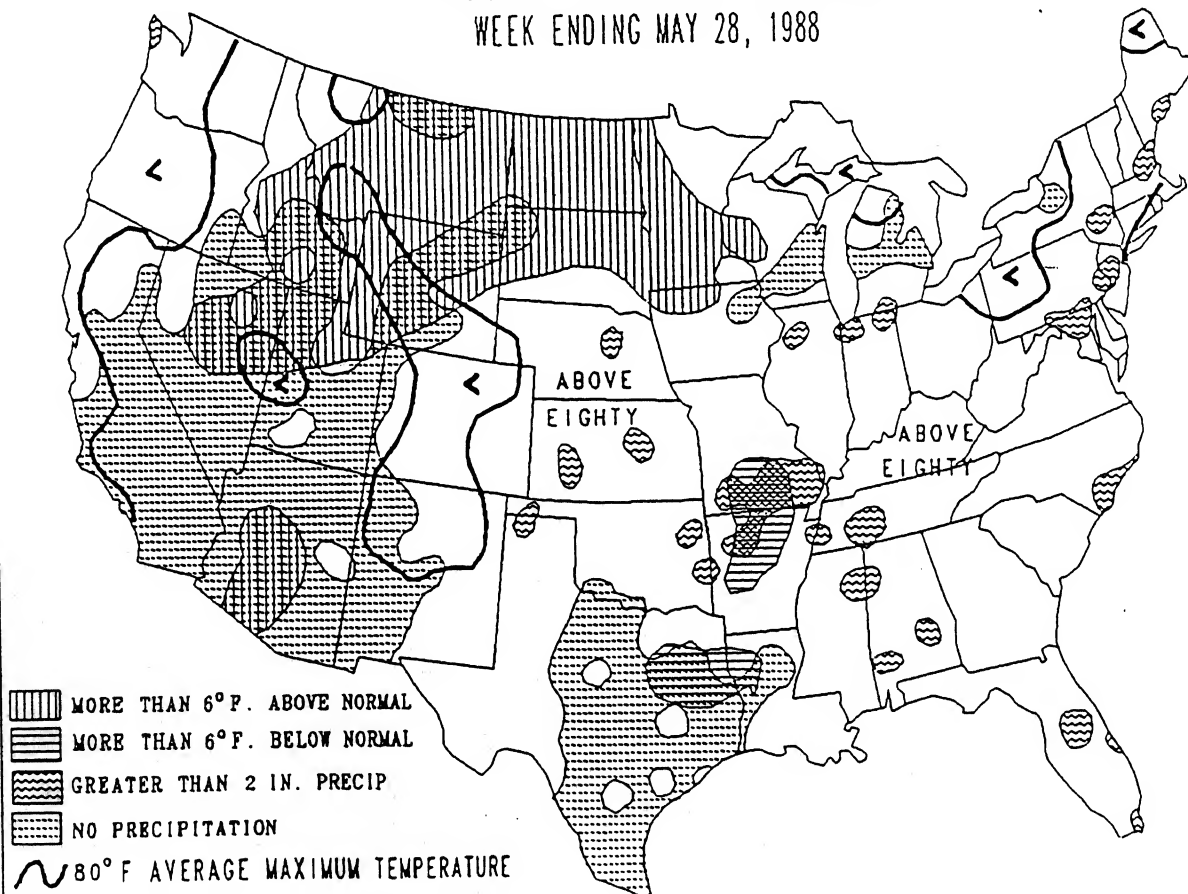


TABLE 1. Selected stations with more than two inches of precipitation for the week.

Wilmington, NC	4.30	West Plains, MO	2.36
Springfield, MO	3.75	Dodge City, KS	2.27
Quillayute, WA	3.59	Cape Hatteras, NC	2.25
Jacksonville, NC	3.37	Columbus AFB, MS	2.23
Cherry Point, NC	2.75	Worcester, MA	2.18
Hilo, Hawaii, HI	2.73	Cape Girardeau, MO	2.15
Annette Island, AK	2.67	Portsmouth, NH	2.11
Montgomery, AL	2.64	Orlando, FL	2.05
Salina, KS	2.53	Brunswick NAS, ME	2.05
Willow Grove NAS, PA	2.43	Monett, MO	2.04

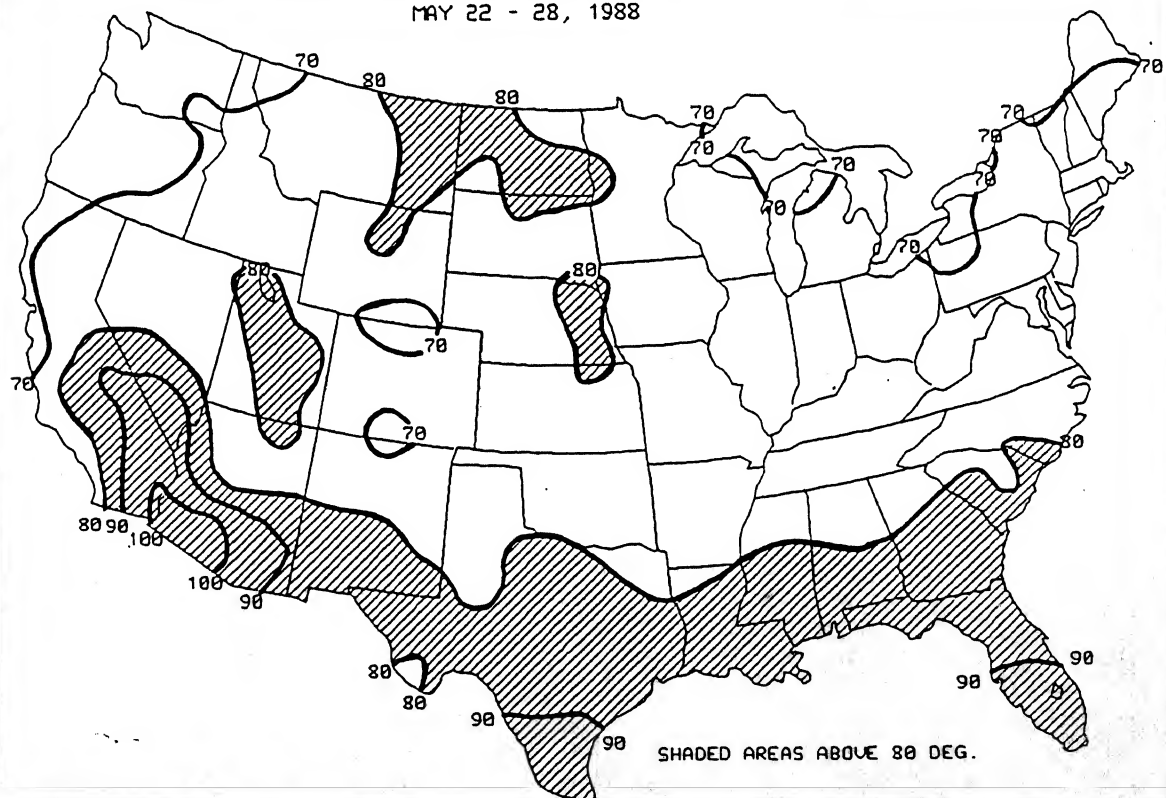
TABLE 2. Selected stations with temperatures averaging greater than 8°F ABOVE normal for the week.

Station	TDepNml	AvgT(°F)	Station	TDepNml	AvgT(°F)
Jamestown, ND	+11	69	Salt Lake City, UT	+10	71
Glasgow, MT	+11	69	Phoenix, AZ	+9	89
Devil's Lake, ND	+11	67	Billings, MT	+9	67
Minot, ND	+11	69	Lewiston, MT	+9	61
Great Falls, MT	+10	66	Gillette, WY	+9	65
Dickinson, ND	+10	66	Bozeman, MT	+9	61
Williston, ND	+10	68	Fargo, ND	+9	68
Helena, MT	+10	65	Worland, WY	+9	68

TABLE 3. Selected stations with temperatures averaging greater than 5°F BELOW normal for the week.

Station	TDepNml	AvgT(°F)	Station	TDepNml	AvgT(°F)
Little Rock, AR	-7	67	West Plains, MO	-6	62
Poplar Bluff, MO	-7	64	San Angelo, TX	-6	70
Lufkin, TX	-7	69	Fayetteville, AR	-6	62
El Dorado, AR	-6	67	Jonesboro, AR	-6	67
Harrison, AR	-6	63	Texarkana, AR	-6	69
Alexandria, LA	-6	71	Shreveport, LA	-6	70
Meridian, MS	-6	68			

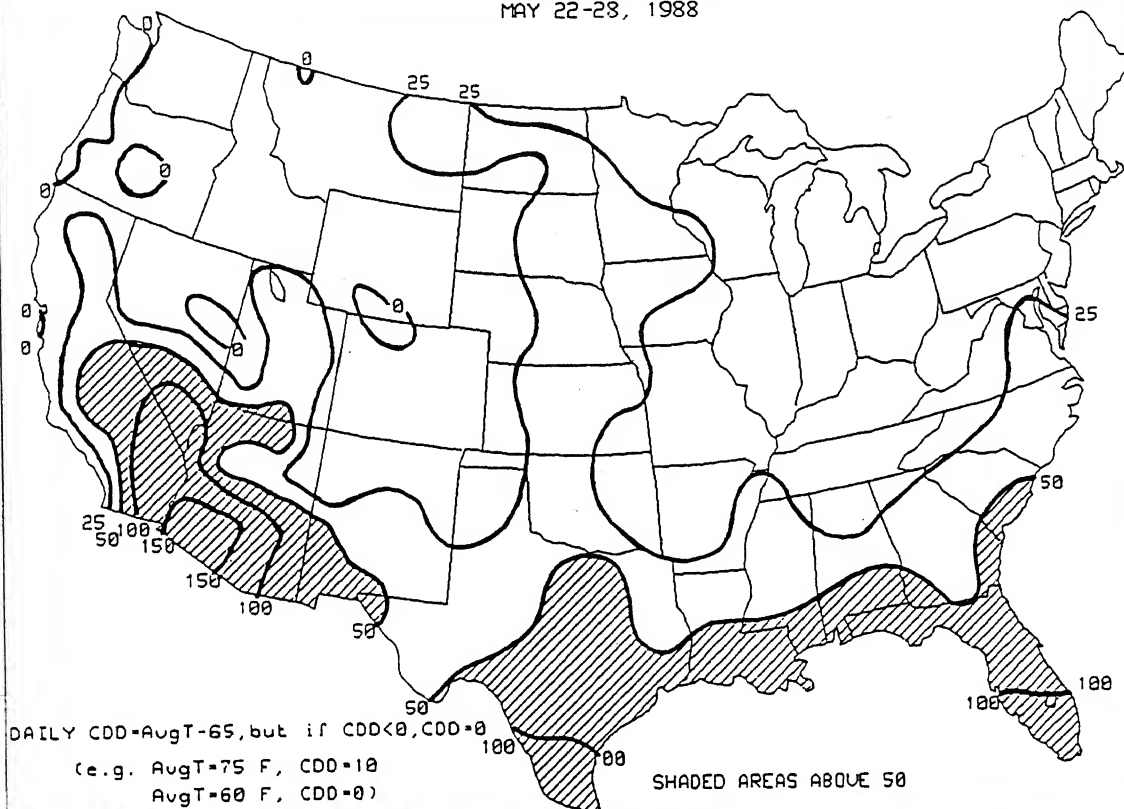
AVERAGE DAILY MAXIMUM APPARENT TEMPERATURE (°F)
MAY 22 - 28, 1988



High temperatures and humidity pushed average maximum apparent temperatures above 80°F in the Great Plains and Southeast, while the heat in the desert Southwest continued.

WEEKLY TOTAL COOLING DEGREE-DAYS

MAY 22-28, 1988

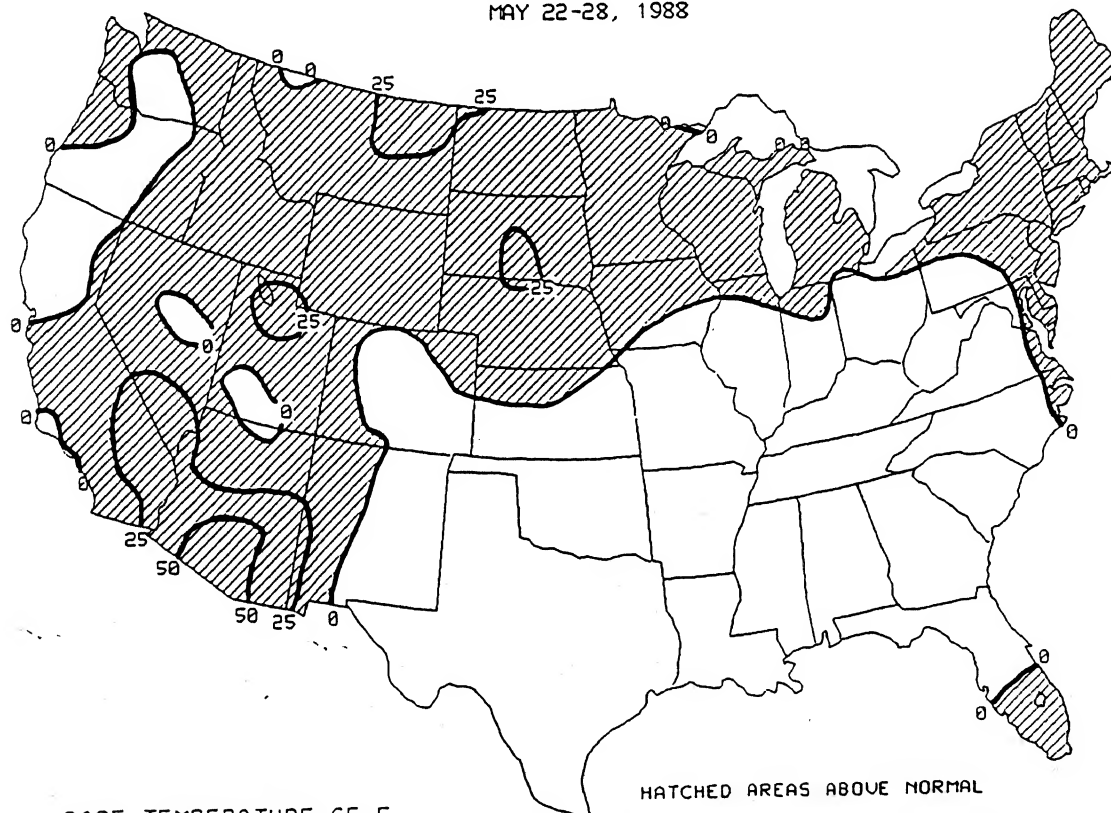


BASE TEMPERATURE 65 F

Unusually warm weather in the northern and western thirds of the country increased the weekly cooling degree day demand in the Great Plains and desert Southwest.

WEEKLY DEPARTURE FROM NORMAL CDD

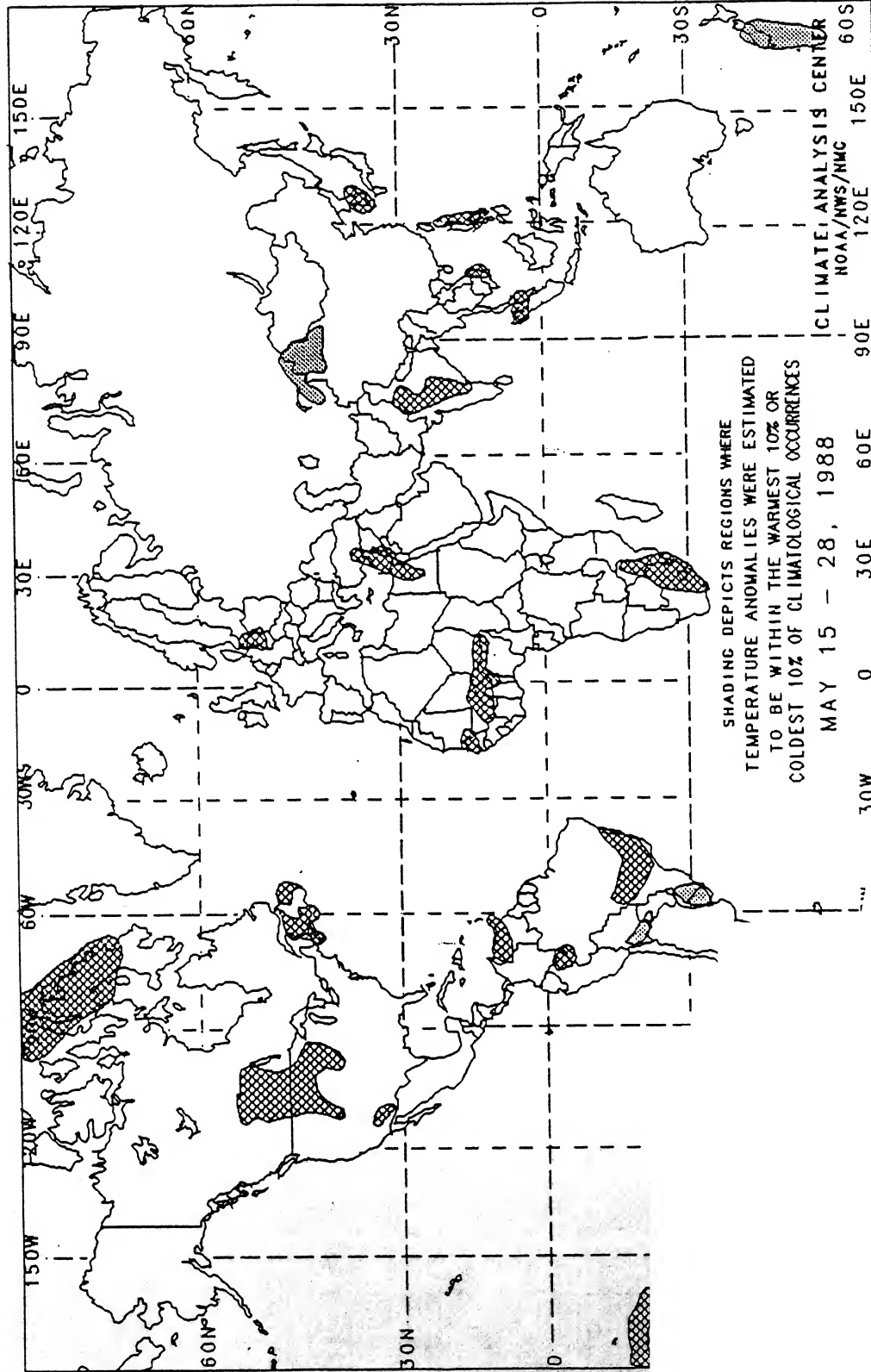
MAY 22-28, 1988



BASE TEMPERATURE 65 F

GLOBAL TEMPERATURE ANOMALIES

2 Week



In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

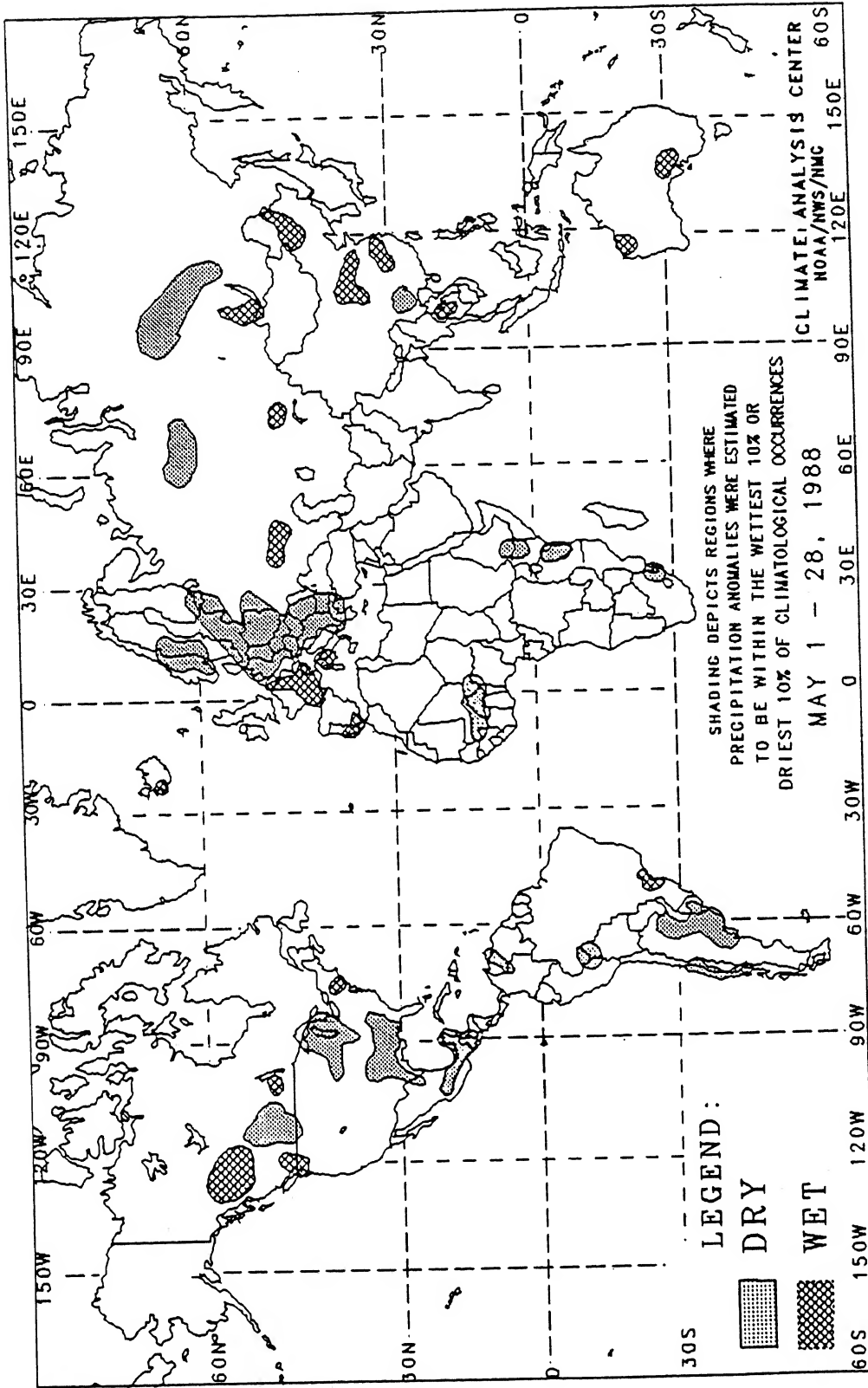
The chart shows general areas of two week temperature anomalies. Caution must be used in relating it to local conditions, especially in

approximately 2500
of temperature
stations do not
tions are
-dated
have

of

GLOBAL PRECIPITATION ANOMALIES

4 Week



The anomalies on this chart are based on approximately 2500 observing stations for which at least 27 days of precipitation observations (including zero amounts) were received or estimated from synoptic reports. As a result of both missing observations and the use of estimates from synoptic reports (which are conservative), a dry bias in the total precipitation amount may exist for some stations used in this analysis. This in turn may have resulted in an overestimation of the extent of some dry anomalies.

In climatologically arid regions where normal precipitation for the four week period is less than 20 mm, dry anomalies are not depicted. The same applies for such arid regions where normal precipitation is less than 20 mm.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of four week precipitation anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

SPECIAL CLIMATE SUMMARY

Climate Analysis Center, NMC
National Weather Service, NOAA

PARTS OF CHINA HAVE EXPERIENCED EXCESSIVE
RAINFALL AND DAMAGING HAILSTORMS DURING MAY.

This month has brought surplus precipitation to many locations throughout China. The unusually wet weather was preceded by abnormally dry conditions during April in coastal and central China. According to press reports, central China's Hubei province suffered its driest April in a century as reservoirs and rivers became precariously low and temperatures hovered around 37.8°C (100°F), while farther north, sandstorms blanketed the capital city of Beijing. Severe drought had also afflicted northwestern China, with some areas reporting dryness for more than 20 months.

In early May, however, ample rains had fallen across northwestern China (area not shown) and had broken the drought, according to the official People's Daily newspaper. Farther east, severe thunderstorms dropped large hail and excessive precipitation on much of coastal Jiangsu province (bordering the Yellow Sea), while a tornado, relatively rare in China, touched down in Guangdong province (bordering the South China Sea). In the middle of the month, very heavy rains dumped up to 304 mm (12 in) on some parts of Jiangxi and Guangdong provinces (west of Taiwan) in southeastern China (see Figure 1). Many stations have recorded well over 250 mm (10 in) since May 1, with a maximum value of 862.4 mm (33.95 in) near Yangjiang, Guangdong province.

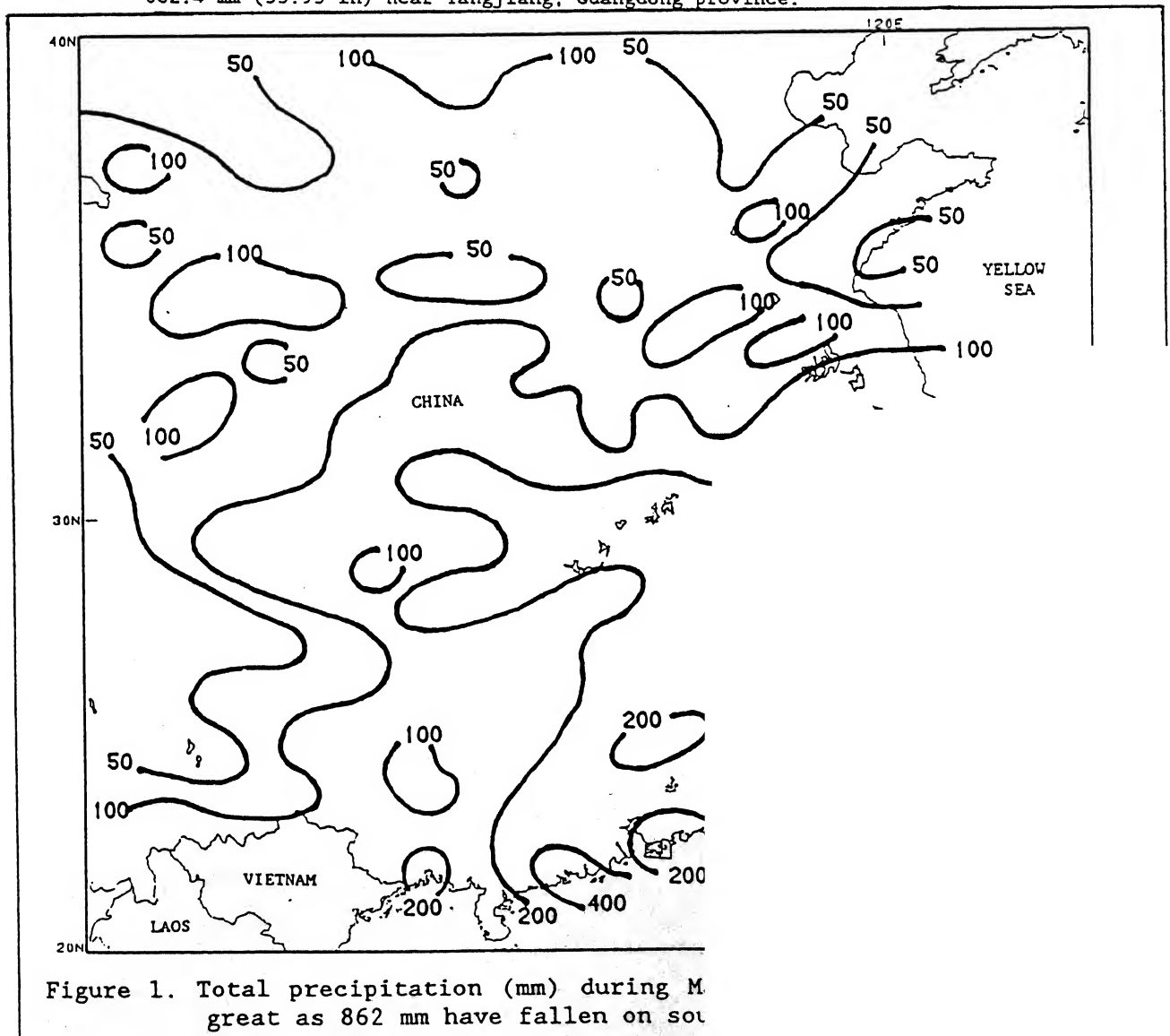


Figure 1. Total precipitation (mm) during M
great as 862 mm have fallen on so

Monthly precipitation amounts normally increase from north to south and from west to east. For example, in the southeastern coastal region, the normal May rainfall totals approximately 200-300 mm, while normal May amounts generally range between 5-10 mm in the northwestern part of China. Even though the percentages of normal precipitation are greater in the northern versus southern sections of China (see front cover), the observed rainfall is much higher in the southern areas since they normally receive larger amounts. Departures above normal (see Figure 2) are biggest in Guangdong, Hubei, Jiangxi, Anhui, and Jiangsu provinces, with a maximum surplus of 646 mm (25.43 in) at Yangjiang.

In northeastern China (area not shown), much of Manchuria has also been experiencing above normal precipitation since early April, however, the weather has not been as severe as the eastern and southern sections of China. In contrast, unusually dry conditions have prevailed in the south-central Chinese provinces of Guizhou and Yunnan, just north of Vietnam. This area has measured below normal precipitation since March.

